



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/249,895 02/16/99 BARKER

K CY-99006

EXAMINER

WM01/0223

JOYCE KOSINSKI
PATENT ADMINISTRATOR
LORAL SPACE AND COMMUNICATIONS
655 DEEP VALLEY DRIVE SUITE 303
ROLLING HILLS ESTATES CA 90274

TRINH, D.

ART UNIT

PAPER NUMBER

2663

DATE MAILED:

02/23/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/249,895

Applicant(s)
Barker et al.

Examiner
D. Trinh

Group Art Unit
2663



☒ Responsive to communication(s) filed on Dec 12, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-17 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☒ Claim(s) 8-11, 16, and 17 is/are allowed.

☒ Claim(s) 1-7 and 12-15 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2663

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campana, Jr (US 5,745,532).

Regarding claims 1 and 12, Campana discloses a system and method for transmission comprising:

processor U1 (transmitting processor) for converting a message and ID into two streams (forming data packets comprising data to be transmitted), col 58, lines 41-62;

protocol to send the two identical streams separated by a time delay interval programmable to be equal to or greater than a time interval of statistically probable fading caused by atmospheric phenomena, col 33, lines 56-67;

receiving circuitry (receiver) which receives the first and second streams and replaces faded information with error free unfaded information time offset from the faded information by the time delay interval, col 33, line 67 and col 34, lines 1-5.

Art Unit: 2663

Campana differs from claims 1 and 12 of the invention in that Campana does not explicitly disclose that the atmospheric phenomena causing the fading is rain. However, it would be obvious to one of ordinary skill in the art that “atmospheric phenomena” that can cause transmission fade would include rain.

Regarding claims 2 and 5, Campana discloses a wireless transmission method in which identical streams are sent with offset equal to fading interval to minimize errors. Campana differs from claims 2 and 5 of the invention in that Campana does not explicitly disclose a satellite. However, to one of ordinary skill in the art, it would be obvious to implement Campana’s transmission method to satellite transmission to minimize error since satellite transmission also experiences similar atmospheric fading as mentioned by Campana.

Regarding claims 3 and 6, Campana discloses an RF system (Abstract).

Regarding claims 4 and 14, Campana discloses that the streams contain error correction code, col 24, lines 57-60.

Regarding claims 7, 13, and 15, Campana differs from claims 7, 13, and 15 of the invention in that Campana does not explicitly disclose that the number of error correction bits is configurable. However, Examiner takes official notice that forward error correction is a well-known technique that is frequently used to minimize data hits in poor or noisy environment. The degree of correction depends on the environment, data rate, and error tolerance. Therefore, it would have been obvious for one of ordinary skill in the art to vary the correction level to meet

Art Unit: 2663

his or her required data rate and tolerance, in order to achieve a desired signal quality in a given environment.

Response to Arguments

3. Applicant's arguments filed on Dec 12, 2000 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

4. Claims 8-11 and 16-17 are allowed.

Conclusion

5. Any inquiry concerning this communication from the examiner should be directed to D. Trinh whose telephone number is (703) 306-5620. The examiner can normally be reached on Monday through Friday from 8:00 am to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen, can be reached on (703) 308-5340. The fax number for the organization where this application or proceeding is assigned is (703) 308-6296.

Application/Control Number: 09/249,895

Page 5

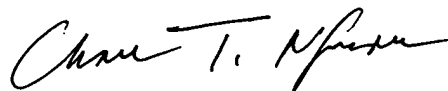
Art Unit: 2663

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

D. Trinh



February 21, 2001



CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600